

CLAIMS

1. A bacterial strain, characterized in that it has a DNA sequence, at least part of which is capable of hybridizing with genomic or plasmid DNA of the strain deposited on December 5, 2002, under the No. I-2962, with the Collection Nationale de Cultures de Microorganismes (C.N.C.M.) [French national collection of microorganism cultures].

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2. The bacterial strain as claimed in claim 1, characterized in that at least 70% of its genome is capable of hybridizing with the DNA of the deposited strain.

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3. The bacterial strain as claimed in claim 1 or 2, characterized by the sequence SEQ ID No. 1 of the 16S rRNA:

GGGTGCCTAATACATGCAAGTCGAGCGCAGGAAGCCGCTCTGAACCCTCGGGGGGACGACGGTGGAAATGA
GGGGCGGACG
GGTGAGTAACACGTAAAAGAACCTGCCCATAGGTCTGGGATAACCACGAGAAATCGGGCTAATACCGGAT
GTGTCATCGG
ACCGCATGGTCCGCTGATGAAAGGCCTCCGGCGTCGCCCATGGATGGCTTGCGGTGCATTAGCTAGTT
GGTGGGGTAA
CGGCCACCAAGGCGACGATGCATAGCCGACCTGAGAGGGTGATCGGCCACACTGGGACTGAGACACGGC
CCAGACTCCT
ACGGGAGGCACGAGTAGGGAATCTCCACAATGGACGAAAGTCTGATGGAGCAACGCCGCGTGAACGATG
AAGGTTTCG
GGTCGTAAGTTCTGTTGTAAGGGAAAGAACAAAGTGCCGAGGCAATGGCGCACCTGACGGTACCTTGC
GAGAAAGCCA
CGGCTAACTACGTGCCAGCAGCCGGTAATACGTAGGTGGCAAGCGTTGTCCGGAAATTATTGGCGTAA
AGCGCGCGA
GGCGCCCTCTAAGTCTGATGTGAAAGCCCCGGCTAACCGGGAGGGCATTGGAAACTGGGAGGCTT
GAGTATAGGA
GAGAAGAGTGGAAATTCCACGTGTAGCGGTGAAATGCGTAGAGATGTGGAGGAACACCAGTGGCGAAGGCG
ACTCTTGGC
CTATAACTGACGCTGAGGCTGCGAAAGCGTGGGAGCAAACAGGATTAGATAACCTGGTAGTCCACGCC
TAAACGATGA
GTGCTAGGTGTTGGAGGGTTCCGCCCTCAGTGTGAAGCTAACGCATTAAGCACTCCGCTGGGAGT
ACGGTCGCAA
GGCTGAAACTCAAAGGAATTGACGGGACCCGCACAAGCGTGGAGCATGTGGTTAACGCAAG
CGAAGAACCT
TACCAACTCTGACATCCCCCTGACCGTACAGAGATGTACCTCCCTCGGGGGCAGGGGTGACAGGT
GGTGCATGGT
TGTGCGTCAGCTCGTGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCCTGTCCTTAGTTGCC
- AGCATTTAGT
TGGGCACACTAGGGAGACTGCCGGTGACAAACCGGAGGAAGGTGGGATGACGTCAAATCATCATGCC
TTATGAGTTG
GGCTACACACGTGCTACAATGGACGGTACAAAGGGCAGCGAAGCCCGAGGTGGAGCCAATCCCAGAAAG
CCGTTCTCAG

TTCGGATTGCAGGCTGCAACTCGCCTGCATGAAGTCGGAAATCGCTAGTAATCGCAGGTCA
GCTGAGATAACGT
TCCCGGGTCTTGTACACACCGCCCGTCACACCACGAGAGTTGCAACACCCGAAGTCGGTGAGGTAA
CCGTA
TAAGGAGCCA
GCCGCCGAAGGTGGGGCAGATGATTGGGGTGAAGTCAACAAAGGTAGCCGTATCGGAAGGTGCGGCTGA

or a sequence having more than 97% similarity with
SEQ ID No. 1.

5 4. The bacterial strain as claimed in any one of claims 1 to 3, characterized in that it is thermo-resistant, saccharolytic and amylolytic and/or capable of producing L(+) lactate.

10 5. The strain as claimed in any one of claims 1 to 4, characterized by growth properties at temperatures of the order of 40 to 50°C, at a pH of 5.4 to 9.15, with an optimum for growth at 45°C, at a pH of approximately 7.

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6. The bacterial strain as claimed in any one of claims 1 to 5, characterized by a guanine plus cytosine content in its DNA of approximately 50 mol%.

20 7. The bacterial strain deposited with the C.N.C.M. on December 5, 2002, under the number I-2962.

25 8. A method for culturing the bacterial strain as claimed in any one of claims 1 to 7, characterized in that the process is carried out under facultative anaerobic conditions, at a pH of approximately 5.4 to 9.15, at 37°C, in particular of 6.5 to 7.5, in a basic medium containing a sugar that can be used as an energy source by this strain.

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9. The use of the bacterial strain as claimed in one of claims 1 to 7, in food fermentation processes.

35 10. A method for producing metabolites such as L(+) lactate, characterized in that it comprises:
- culturing a bacterial strain as claimed in any one

of claims 1 to 7, under conditions suitable for its development and for the production of the desired metabolite,
- recovering the metabolites produced, isolating the
5 desired metabolite and purifying it.